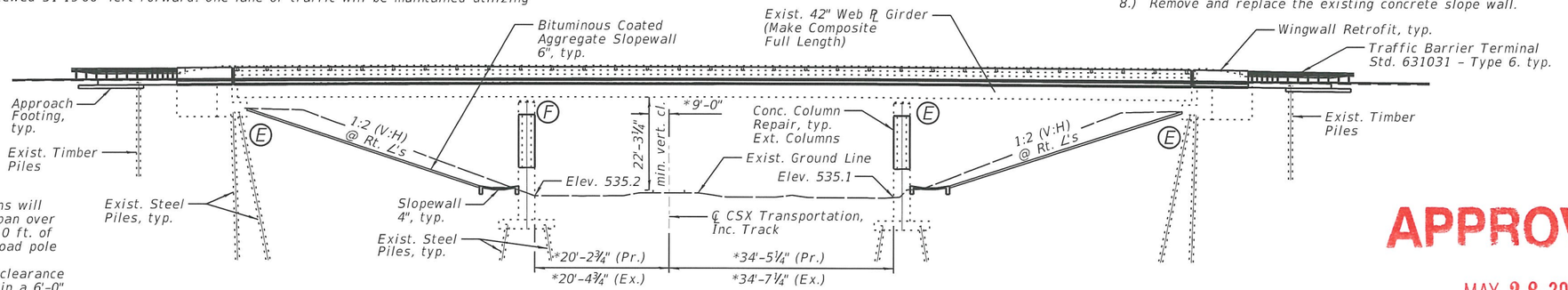
Benchmarks: BM 8, Chiseled "□" in South wingwall of West Abutment of SN 032-0075. Elevation = 566.39, Station 278+15.34, 22.39' RT.

Existing Structure: Structure No. 032-0075 was originally constructed in 1974 as Section G-VB. In 1991, the abutment bearings were replaced. In 2004, deck repairs, expansion joint reconstruction, and substructure concrete repairs were completed. In 2014, emergency repairs were completed to the deck wearing surface. The superstructure consists of three-span continuous, composite steel plate girders with an 8" cast-in-place concrete deck and a 2½" bituminous wearing surface. The substructure consists of stub abutments supported by driven steel piles and multi-column piers supported by driven steel piles. Wood piles are present at the original approach slab bents. The back-to-back of abutments length measures 244'-0" and the out-to-out of deck width measures 46'-0". The span lengths are 71'-9", 92'-0", and 71'-9". The structure is skewed 51°19'00" left forward. One lane of traffic will be maintained utilizing stage construction.

No salvage.

SCOPE OF WORK

1.) Maintain one lane of traffic utilizing stage construction.
2.) Remove and replace the existing concrete deck and expansion joints.
3.) Remove and replace the existing bearings at the abutments and at the pier fascia girders.
4.) Remove and replace the existing concrete approach pavement.
5.) Full clean and paint the existing structural steel and bearings.
6.) Retrofit the existing wing walls to attach to Traffic Barrier Terminal, Type 6.
7.) Concrete column repairs at the piers.
8.) Remove and replace the existing concrete slope wall.

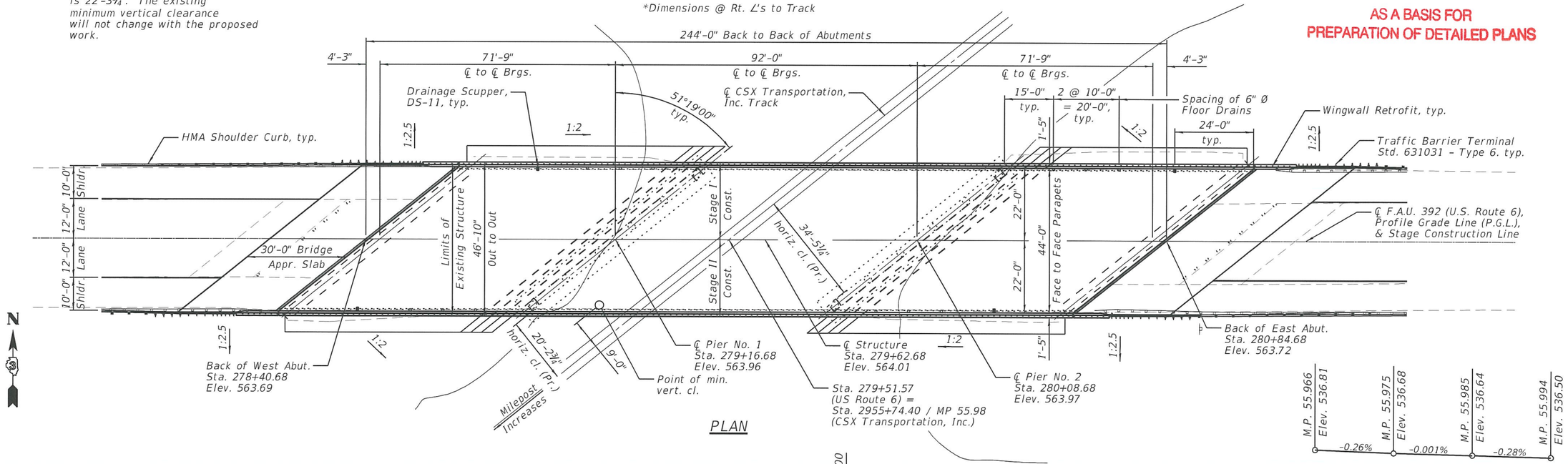


NOTES:

1.) No freefall deck drains will be permitted in the span over the tracks or within 10 ft. of cross arms of a railroad pole line.
2.) The minimum vertical clearance above top of rail within a 6'-0" offset from centerline of tracks is 22'-3¾". The existing minimum vertical clearance will not change with the proposed work.

ELEVATION

*Dimensions @ Rt. L's to Track



PLAN

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44

Allow 25 # / sq. ft. for future wearing surface

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.040
Site Coefficient (S) = 1.0

EXISTING DESIGN STRESSES

FIELD UNITS:

fc = 1,400 psi (Substructure, Curb, and Parapet)
fc = 1,200 psi (Deck)
fs = 20,000 psi (Reinforcement)
fs = 20,000 psi (Structural Steel, A36)
vc = 75 psi (Footings)
n = 10

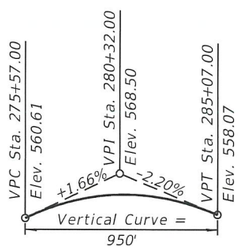
PROPOSED DESIGN STRESSES

FIELD UNITS:

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)

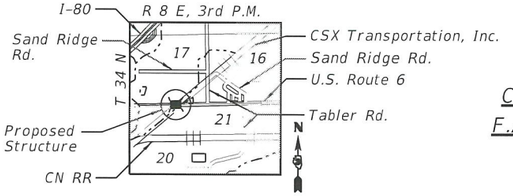
HIGHWAY CLASSIFICATION

F.A.U. Route 392 (U.S. Route 6)
Functional Class: Minor Arterial
A.D.T.: 6,396 (2021), 7,626 (2041)
D.H.V.: 640 (2021)
A.D.T.T.: 702 (2021), 837 (2041)
Design Speed: 55 M.P.H.
Posted Speed: 55 M.P.H.
Two Way Traffic
Directional Distribution: 50/50



PROFILE GRADE

(Along ℄ Roadway)



LOCATION SKETCH

CSX TRANSPORTATION, INC.
TRACK PROFILE GRADE

(Top of rail along west rail)

U.S. ROUTE 6 OVER CSX TRANSPORTATION, INC.
F.A.U. 392 - SECTION (G)VB-1
GRUNDY COUNTY
STATION 279+62.68
STRUCTURE NO. 032-0075

APPROVED
MAY 28 2019
AS A BASIS FOR PREPARATION OF DETAILED PLANS

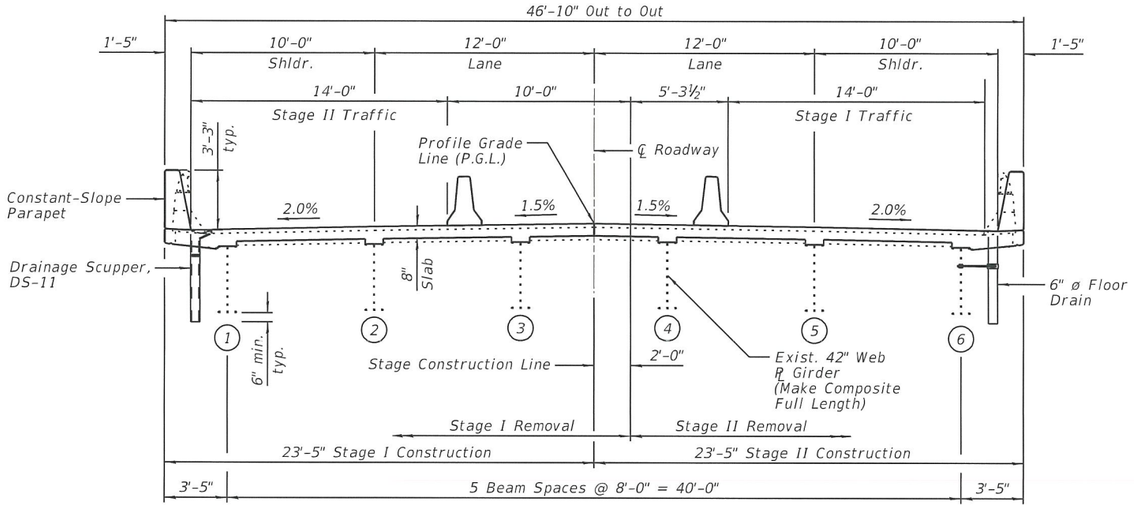
Farnsworth GROUP
2709 McGRAW DRIVE
BLOOMINGTON, ILLINOIS 61704
(309) 663-8435 / info@f-w.com

	DESIGNED - JCZ	REVISED
	CHECKED - JML	REVISED
	DRAWN - SRL/RJT	REVISED
DATE - 11/21/18	CHECKED - DJM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

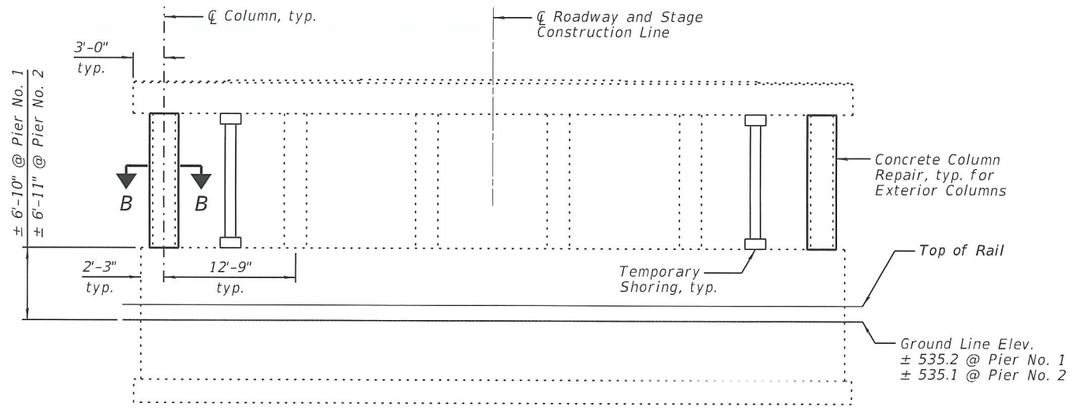
GENERAL PLAN
STRUCTURE NO. 032-0075
SHEET NO. 1 OF 2 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(G)VB-1	GRUNDY	2	1
		CONTRACT NO. 66E45		
		ILLINOIS FED. AID PROJECT		



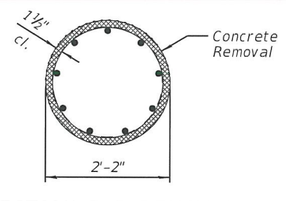
CROSS SECTION

(Looking East)

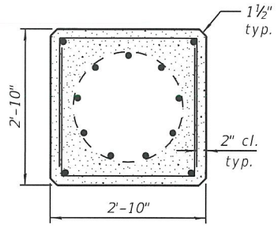


PIER SKETCH

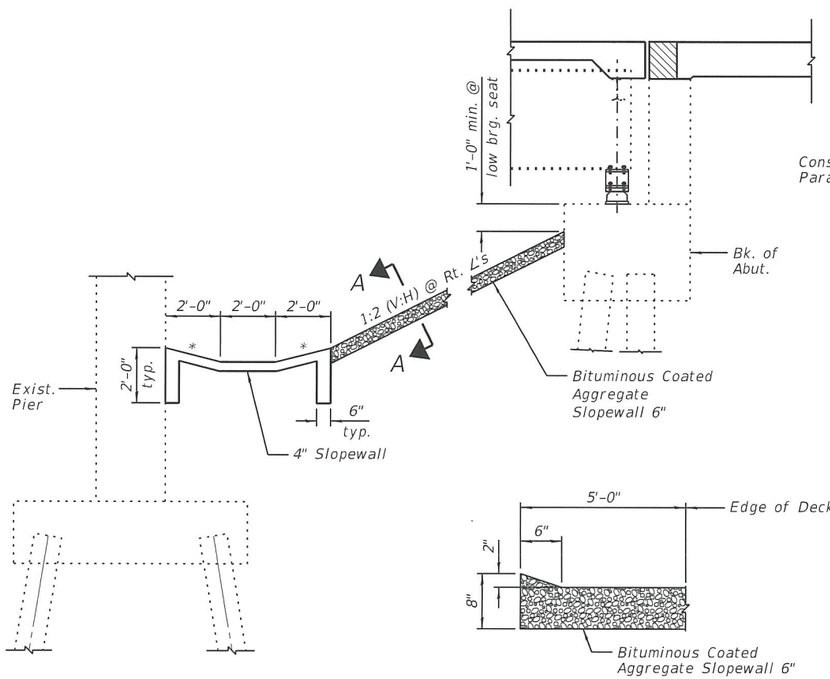
(Looking East)



SECTION B-B REMOVAL



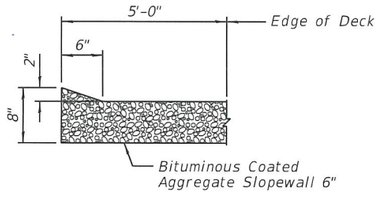
SECTION B-B PROPOSED



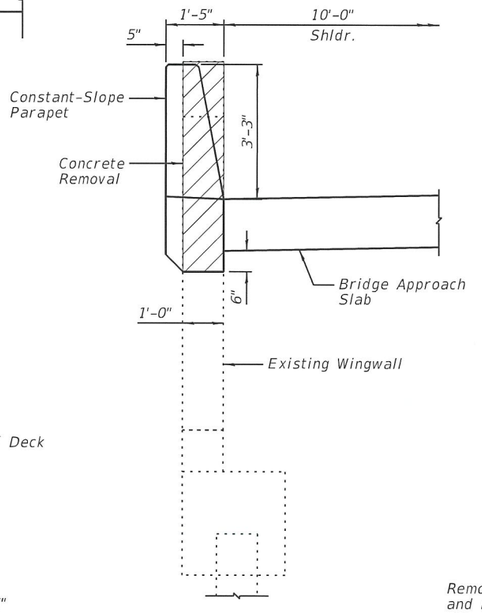
SECTION THRU SLOPEWALL

*1:4 (V:H)

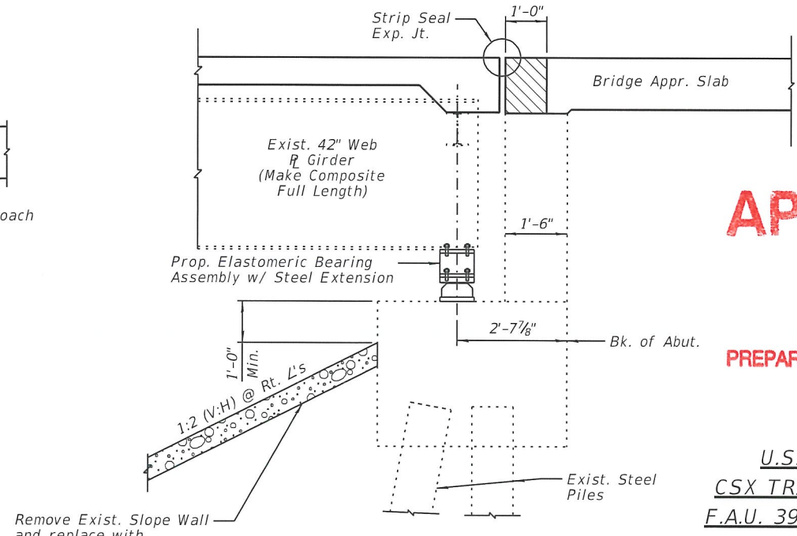
(Horizontal dimensions @ Rt. ∠'s)



SECTION A-A



WINGWALL RETROFIT SECTION



SECTION THRU ABUTMENT

(Horizontal dimensions @ Rt. ∠'s)

APPROVED

MAY 28 2019

AS A BASIS FOR PREPARATION OF DETAILED PLANS

U.S. ROUTE 6 OVER
CSX TRANSPORTATION, INC.
F.A.U. 392 - SECTION (G)VB-1
GRUNDY COUNTY
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DATE - 11/21/18	CHECKED - DJM	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAILS
STRUCTURE NO. 032-0075
SHEET NO. 2 OF 2 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
392	(G)VB-1	GRUNDY	2	2
		CONTRACT NO. 66E45		
	ILLINOIS FED. AID PROJECT			